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ABSTRACT

Educational systems in all nations are called on to accommodate people who are past the age of compulsory schooling but who desire further education that is not provided by the traditional universities. In the United States, the term "community college" is used generically for all publicly-supported institutions accredited to award the associate degree as their highest degree. Overall, community college education is more generalized in countries where student tracking is delayed, as in the United States, and more specialized where students are directed to their likely place in the workforce at an early stage, as in Northern Europe. Nevertheless, community colleges worldwide share certain characteristics: they serve several purposes in the interstice between compulsory and higher education, or, in some cases, after higher education; their fees are usually lower than those charged by universities; students may enroll without satisfying rigorous university requirements; and large numbers of part-time faculty are employed. The people attending community colleges tend to reflect the characteristics of the adult population of the college district, and most students attend on a part-time basis, commuting from their nearby residences. Community college faculty have more in common with secondary school teachers than with university professors, rarely engaging in research or scholarly publication and often having close ties with local industries or governments. Governance and organizational patterns vary from state-coordinated systems to branches of universities, privately-run institutions, and nationally coordinated systems. A comparison of institutions in the People's Republic of China, Germany, Japan, New Zealand, and Norway illustrates that curricular emphases, control, and student populations constitute the areas of major difference. Expansion of the community college sector is assured due to rising demand worldwide for further education at reasonable cost. (JMC)

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International Counterparts of the American Community College

Article No. 501056

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Center for the Study of Community Colleges,
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Article No. 501056
Community Colleges

Educational systems in all nations are called on to accommodate people who are past the age of compulsory schooling but who desire further education that is not provided by the traditional universities. That group includes students seeking preparation for jobs or low-cost access to pre-baccalaureate studies, and adults who want culturally and socially relevant recurrent education. The systems also are expected to supply properly trained workers for the nation's business and industry and to retrain the work force to meet the demands of emerging technologies. These challenges have led many countries to develop various forms of schooling in which one or a combination of these functions are carried out.

1. Scope

The post-compulsory, non-university sector includes structures organized in association with the nation's formal school system as well as numerous unique enterprises standing apart. Although this area of education is a loosely defined sector, its outlines can be traced in the formally recognized institutions that perform its functions in the nations of Asia, Europe, and North America where the concept is most generally recognized.

The names applied to the institutions in this sector suggest its multiple purposes. In the United States, the term, community college, is used generically for all publicly supported institutions accredited to award the associate degree as their highest degree. Elsewhere these institutions may be known as junior colleges (still used in U.S. for some privately

supported colleges), regional or district colleges, technical or technological institutions, or by a number of other names, as shown in Table 1. "Short cycle," is sometimes used in Europe to encompass the entire group of postsecondary schools that do not award baccalaureate degrees but in this paper, community college is the collective term.

Distinctions within the category may be made by reference to curricular classifications or mode of institutional organization. The colleges offer general or foundation studies, pre-university courses, technical and vocational programs, and cultural and social education. None of these terms is definitive and the same institution may provide several types of curricula, with overlaps among them. The colleges may be organized as branches of a university, locally governed schools, or as independent state or national systems. In some nations specialized curricula are provided in two or three types of community colleges, each governed and funded differently.

Overall, community college education is less a definable institutional sector than an area of education that serves several purposes in the interstice between compulsory and higher education or, in some cases, after higher education. It tends to follow patterns of workforce differentiation and is more generalized in countries where student tracking is delayed, as in the United States, more specialized where streaming students according to their likely place in the workforce is made earlier, as in Northern Europe.

Nevertheless, the community colleges worldwide share certain characteristics. Their fees are usually lower than those charged by universities and students may enroll without satisfying the rigorous requirements that many university systems impose. The institutions

employ large numbers of part-time faculty members. They may provide undergraduate studies that can be used as credits toward baccalaureate degrees if the student eventually gains admission to the university, a function that is especially prominent in the United States and Canada. Where educational expectations are expanding they relieve the pressure placed on university systems by people seeking admission for postsecondary studies. And they act as flexible institutions that can organize programs to resolve short-term problems of language preparation for immigrant groups, workforce retraining in the face of technological change, and community expectations for ad hoc postsecondary education of general interest to the local populace.

1. Background

The development of community colleges in the various nations has followed different patterns. In the United States, where 1250 community colleges serve more than 5.5 million students, the institutions date from the early years of the twentieth century. As long ago as 1930, community colleges were operating in nearly every state. The general expansion of postsecondary education that began in the 1940s led to rapid growth as institutions were organized to provide freshman and sophomore courses for students for whom the universities had no space. Many additional students appeared who either were not qualified for university entrance because of their poor prior academic preparation or who could not afford the higher tuition charges. The colleges grew also because they organized programs to prepare people for middle level or semi-technical occupations that the universities had ignored. These two central functions, prebaccalaureate and technical training, were subsequently joined by two

others: cultural and educational programs in which people might participate for their personal interest, the lifelong learning concept, and remedial courses for the students who failed to learn basic literacy skills in the lower schools. By the 1980s nearly half the undergraduates enrolled in publicly supported higher education in America were in community colleges, found now in all fifty states. And if the proprietary trades schools are added to the category, the number of students in community colleges exceeds the total enrolled in universities.

Although the community colleges in other nations are not as comprehensive or ubiquitous, they share many of the same developmental characteristics. Canada's were founded in each province to meet rising demands for access to postsecondary studies, workforce preparation, and adult education. The Republic of China's junior colleges, organized in the late 1970s, provide programs that vary in length from two to five years, with the latter accepting students from middle schools. The Swedish system was reformed in 1970 when pre-university preparatory schools were combined with vocational programs to form single upper secondary schools. The University Institutes of Technology were founded in France in the 1960s in an attempt to channel more students into programs connected with the workplace. Their selective admissions policies and technological emphases differentiate them from that nation's higher technicians' sections which are more nearly terminal vocational schools.

1.2 Emphases

The emphasis placed on the functions assigned to community colleges varies considerably. Occupationally-related studies are prominent in many systems. Some of the American community colleges provide vocational

and technical programs exclusively, and a few states have organized dual systems, with university branches providing the general education and technical institutes the occupational studies. Sweden's upper secondary schools integrate general subjects with vocational training that includes a workplace-based component. Vocational courses are also featured in the regional technical college system in Ireland, the Japanese special training schools, and the junior colleges in the Republic of China.

Pre-baccalaureate programs are prominent in community colleges in nations where the universities have been unable to matriculate a rising number of degree seekers. The American colleges enroll sizable numbers of students who seek the first two years of a bachelors-degree program. Such students form a high proportion of the enrollment in numerous institutions, especially in states such as Kentucky and Wisconsin where the colleges were organized as branches of the state university, and in states where the public universities' freshman class is kept deliberately small so that the community colleges serve as feeders to the upper division; Arizona, California, and Florida are notable examples. The credits earned in the Canadian community colleges and in the Japanese junior colleges also typically can be applied to the baccalaureate degree but this feature is rare in other nations.

The cultural and social education of adults, often called lifelong or recurrent learning, is emphasized in the regional colleges in Norway, the Volkshochschule in Germany, the folkhighschools in Denmark, and the colleges of further education in Britain and Australia. The lifelong learning programs in these institutions have a widespread scope. Cultural and leisure-time activities are a part, along with programs that are attentive to social objectives in the local communities. The British and Australian

systems rely heavily on open or distance learning provided through electronic media. Table 2 displays the major emphases in each nation.

1.3 Organization

Governance and organizational patterns vary. The American community colleges were formed originally by public school districts, churches, independent agencies, universities, or under special state authorization, with the state-coordinated system gradually becoming the prevalent pattern. In Austria, Denmark, Indonesia, Sweden, and, more recently, France, short-cycle postsecondary programs were attached to the secondary school system. In South America the colleges were more likely to be founded as branches of the university or the polytechnic colleges. Separate systems were developed to govern community colleges in Canada, and New Zealand has formed a technical institute system to link its community colleges with its polytechnics and technical institutes (Kintzer 1990). Japan's junior colleges and special training schools are privately supported in the main but there is also a small system of public technological colleges. Norway's short-cycle programs are conducted through district colleges, Israel's through regional colleges, Germany's through Fachhochschulen, nationally coordinated but with a strong component of local governance.

The age limits for compulsory schooling affect the way community colleges are organized. In nations where the compulsory years end early the community college may take the form of an institution offering programs that extend for four or five years. The programs in these institutions serve upper-secondary as well as early collegiate functions. But where the students are obliged to attend school for ten years, the

community colleges operate as postsecondary institutions offering prebaccalaureate, occupational, and/or recurrent education studies. Such programs may be of only one or two-year duration or even shorter in the case of specific occupational-certificate programs.

The formation of community colleges usually follows the recommendations of some state or national body commissioned to study ways of accommodating the rising demand for post-secondary studies and for relevant occupational and technical training. These types of commissions were organized in numerous countries in response to the population bulge of the 1960s. During that decade 50 community colleges a year opened in the United States. The Israeli colleges, along with those in such African countries where they have been developed, date also from that time. The colleges in Scandinavia grew out of the older, locally governed adult schools but those systems, too, have been broadened since the 1960s.

The community colleges may be integrated into a single post-secondary system that includes the universities, they may be extensions of the secondary school system, or increasingly, they may take form as separately organized post-secondary structures. Most of the American community colleges are governed by state or local boards of trustees and local boards are influential in the German and Scandinavian systems. In general the community colleges operate under state or national laws with local boards more prominent than they are in the university sector.

1.4 Students

Enrollments in each nation's community colleges vary greatly depending on the level of institutional development, especially the number

of sites, and the accessibility of the universities. Since the 1970s enrollment growth worldwide has been greater in the community colleges than in the universities. In Australia and Britain further education enrolls twice as many students as the universities. In some of the states in the United States where a campus is within reasonable commuting distance for nearly the entire population, as many as 85 percent of the students who begin higher education do so in a community college. But the proportion of postsecondary enrollment in community colleges in France, Israel, and Italy is considerably lower, principally because the universities are open to a broader range of matriculants.

The people attending community colleges tend to reflect the characteristics of the adult population in the districts where the colleges are located. Their ages range from the high teens all the way to the most elderly, with the former concentrated in the prebaccalaureate programs and the latter in recurrent education. Half the students in the American community colleges are age 25 or younger, one third of them under age 22 (Cohen and Brawer 1989). In systems where lifelong learning is emphasized, the median student age is higher.

Most community college students attend on a part-time basis, commuting from their nearby residences. The students' aspirations and age affect their attendance patterns. The younger students, typically enrolled in vocational entry or prebaccalaureate programs, are more likely to attend full-time. Most of the older students who enroll in recurrent education for their personal interest or in occupational recertification or career upgrading courses are employed in local business, industry, or service occupations and attend part time.

Data on the positions held by the students after they leave the community colleges are difficult to aggregate because the institutions serve as recurrent learning centers with sizable numbers of students entering and leaving as their educational aspirations and life circumstances shift. Nearly one-third of the students receiving a university diploma of technology from a French IUT and two-thirds of those obtaining associate in arts or sciences degrees from the American community colleges matriculate at universities. But these figures are misleading because most of the community college attendees do not complete the degree programs and many of the programs in all systems lead to certificates that do not qualify the holder for university study. Similarly, the figures on job entry are unclear. Many students already hold jobs and use the colleges for further education qualifying them for advancement. The data that are available suggest that as many as 90 percent of the graduates of programs leading to positions in selective-entry fields, such as the health and engineering technologies, obtain employment whereas as few as 20 or 30 percent of the students who are prepared as office workers or sales personnel gain immediate employment. The job market in a college's locality constitutes a major variable.

1.5 Finance and Facilities

The financing of community colleges is varied, ranging from full support by national governments to a majority of support coming from local communities. Many systems are funded by monies coming from a combination of sources. The pattern in Scandinavia is for the national government to fully support the institutions whereas in Japan tuition paid by the students accounts for a sizeable proportion of the funding.

Community colleges in the United States receive practically no money from the federal government except for that which is paid on behalf of students who receive federal grants and loans. Overall the American public community colleges receive 10 percent of their income from the federal government whereas tuition and fees account for 16 percent, local aid 17 percent, state aid 47 percent (Cohen & Brawer 1989). The junior colleges in Japan receive 9 percent of their income from the government, 62 percent from student fees, 10 percent from endowments, 11 percent from loans. (National 1990). In both nations, auxiliary services and private gifts and grants account for the remainder

The cost per student per credit hour is from one-third to one-half as much as in universities, with the difference a result of many factors. The faculty in community colleges teach longer hours and are paid less, the libraries and laboratories are considerably more modest, and class size is larger on average. The tendency in most nations is for the community colleges to have limited facilities, often to have no exclusive campuses of their own. They offer courses in school buildings, in public administration facilities, and in businesses and factories, especially for the people working there. However, although the community colleges of the United States and Canada often started in such donated and rented facilities, most of them now have developed full-service campuses.

1.6 Faculty

The community college faculty have more in common with secondary school teachers than with university professors. They rarely engage in research or scholarly publication. Their credentials may be trades

experience or baccalaureate degrees for those teaching the vocational courses, masters degrees for those teaching in pre-baccalaureate programs. Some, such as the Danish folkhighschools operate with non-certificated faculty. The part-time instructors in American community colleges outnumber the full-timers by 58 to 42; just under one-fourth of the instructors hold the doctoral degree. The doctorate is even less common among community college instructors in other lands where recurrent and vocational studies are more prevalent.

The faculty often have close ties with local industries or governments, working in the plants or agencies and teaching during off hours. The full timers teach for more hours, 12 to 20 per week, and are paid less than the university professors. The part timers are on hourly pay scales and usually have little security of employment. Instructional innovation is encouraged and community college systems around the world rely heavily on cooperative learning, multimedia presentations, peer tutorials, and open-broadcast output, as well as on traditional classroom activities.

1.7 Curriculum

Each of the curricular areas, general, pre-university, technical, vocational, and cultural-social covers a broad scope. The general studies include reading, writing, and arithmetic for students who passed through the compulsory school years without being adequately prepared for life in the community or who dropped out of secondary school before completing the requirements for a diploma. The programs may also emphasize rudimentary work habits, study skills, and personal hygiene and social practices.

The pre-university curricula feature introductory courses in the sciences, social sciences, mathematics, humanities, and fine arts, often arrayed in two-year programs leading to a university specialization. They are heavily influenced by the university faculty who often have authority over which courses are acceptable for credit toward the baccalaureate; therefore the courses rarely deviate greatly from the content and text of their university counterparts.

Technical studies apply science to the workplace. Most of the health fields fall in this category along with engineering, some mechanical operations, business management, information processing, and professional support areas such as laboratory technician training. In nations where teacher education does not require a bachelor's degree, those studies are provided through the community colleges.

Vocational studies prepare people for jobs in factories, offices, and farms. They center on specific workplace functions and may be provided through programs that take only a few months, to complete. The type of vocational study that is offered varies with labor-force demands in the college's vicinity and the programs often have direct links with local employers or labor organizations.

Cultural and social studies are provided for adults who may or may not have participated in prior postsecondary education. The courses are often presented as short, discrete offerings for a few days or months, with a focus on specific topics; e.g., child care, art appreciation, cooking, foreign languages for travelers, labor union or small business management, civic issues, consumer education. Certificates of completion may be awarded.

2. NATIONAL PROFILES

As the following profiles illustrate, the organization and operation of community colleges in the various nations takes different forms. The curricular emphases, control, and student populations are the major differences. However, the absence of a community college system or of a particular curricular function within one does not necessarily mean that the function is not offered; it may be provided by that nation's university or adult school system.

2.1 People's Republic of China

The two-year vocational or polytechnic institutions in PRC were developed in the 1970s and 1980s, initially under World Bank financing. By 1982, 53 such institutions were in operation, offering courses in secretarial work and accountancy. Adult education through various inservice courses and two-year and three-year vocational courses presented through the universities are also provided but the tendency is to promote more two-year vocational schools. In general the Worker's Colleges provide the technologies, especially engineering, while the Two-Year Vocational Universities are directed toward local-community requirements for vocational studies. (Shiqi 1984).

2.2 Germany

The Volkshochschule began in the nineteenth century as open access, low cost institutions. They now total 900 institutions offering a varied curriculum including language training for foreigners, personal interest courses in the arts and humanities, and a potpourri of courses and activities relating to local

community social objectives. They tend to operate without permanent campuses, with courses taught by part-time instructors in various types of facilities. Local governance is strong in their operation but they are funded by a combination of state and national monies. (Bogart 1985).

2.3 Japan

Japan's 561 junior colleges, 3152 special training schools, and 62 technical colleges together enroll more than 25 percent of the students who graduate from high school. This compares with less than 19 percent who go to the universities. Ninety-one percent of the junior college students are women but men form the majority of the students in the special training schools. Beginning in 1976 the latter schools have taught technologies, paramedical fields, business, accounting, and foreign languages. The junior colleges are heavily weighted toward the liberal arts with more than 70 percent of the students majoring in humanities, home economics, or education. (National 1990). There is little transfer to the universities from either set of institutions. As compared with the universities the colleges enroll students from the lower socioeconomic groups and their programs lead to less prestigious employment. Adult education is not featured but is provided instead through locally organized adult education centers. General vocational studies are undertaken in more than 3000 miscellaneous post-secondary schools privately organized to offer business and health-related studies and to prepare students for the university examinations (Abe 1989).

2.4 New Zealand

The twenty technical institutes and community colleges in New Zealand enroll 80 percent of all students in higher education in that nation. They offer short courses in business for local interests to a population comprising part-time students in the main. Certificate programs in nursing and applied sciences are also offered by a faculty made up of approximately equal numbers of full-timers and part-timers. (Kennedy 1981).

2.5 Norway

The Norwegian regional colleges enroll just over 6 percent of all students in higher education in that nation. They tend to be more vocationally oriented than the universities but they do offer certain courses which can be credited towards traditional university degrees. Seventy percent of the students are in vocational programs, 20 percent in university preparation. Funding originally was based on local sources for buildings and national sources for operations but the colleges have since become totally funded by the nation. (Kyvik 1981).

3.0 Trends and Issues

The worldwide expansion of post-compulsory, non-university education will continue as national development, technological changes in the work place, and rising demand for further education focus attention on this sector. The major inhibitors to this expansion are competition from the universities and the lower school systems, and limitations on public finance of education. In most nations the tendency is for technological studies and vocational education to be provided at public expense while cultural and social education is often seen as a consumption item to be paid for by the participants. Free or heavily subsidized post compulsory education for everyone on a recurrent basis is not feasible; therefore, cooperative arrangements, with financing and facilities provided in cooperation with local industries, continue to be sought so that the burden of paying for the instruction can be shared.

Issues of national planning versus local option come continually into play. In many nations the central agencies attempt to anticipate work force needs and to encourage development of programs that prepare people in those specialty areas. At the same time the locally based community colleges value their ability to respond to local demands on the part of industries that need especially trained workers and individuals who want access to programs of their choice. The organization of the community colleges within national education systems often conflicts with these local and individual expectations.

Within the community colleges the necessity of serving masses of people economically and sustaining curricular relevance make for continual modifications. Instructional systems that differ from the traditional labor-intensive teaching are sought and the proper training for

instructors is always a concern. The amount of credit that should be awarded for work experience is an issue along with the capacity of the institutions to maintain control over their own curricula while not jeopardizing their students' ability to transfer credits to other post secondary institutions.

The various types of institutions that make up the community college sector in any nation present a problem of coordination. Duplicating and completing systems magnify problems of finance and articulation. The United States has publicly funded community colleges, private junior colleges, and proprietary trade schools. Japan has private junior colleges, national technological institutes, and special training schools with a strong component of local governance. The lines between France's university institutes of technology and higher technicians' sections are not clearly drawn. And within every nation institutional drift occurs continually as the local colleges become regional, the specialized institutes become comprehensive, and the competition for students and funding leads all of them to organize new programs continually.

The community college sector attempts to retain its flexibility so that it can respond to changing student populations and labor force demands. But this flexibility and the absence of familiar academic degrees results in the public's holding a murky view of what the institutions are. Institutional evaluation is often misguided because traditional paradigms of educational research focus on degree attainment and students' cognitive learning developed through sequentially organized programs, neither of which is a feature of community college education.

In the nations where the community colleges have not developed, studies repeatedly point to the need for some type of institution to perform

the functions that could be provided by this sector. In Italy, for example, where the universities have been open to all petitioners, the need for two-year vocational programs and other types of intermediate diploma-related activities is apparent. In Britain where the proportion of eighteen year-olds entering higher education each year continually expands, the case for an increase in the number of two-year diploma courses and for a breakdown in the barriers between the universities and the community colleges can be recognized. In general, expansion of the community college sector is assured because of rising demand worldwide for further education at reasonable cost.

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TABLE I
INSTITUTIONS PROVIDING COMMUNITY COLLEGE FUNCTIONS

INSTITUTION	COUNTRY
College of Advanced Education	Australia
College of Applied Arts and Technology	Canada
Collége d'Enseignment Général et Professionnel (CEGEP)	Canada
College of Further Education	Australia Britain
Community College	Canada New Zealand United States
Fachhochschul	Germany
Folkhighschool	Denmark
Higher School	Yugoslavia
Higher Technicians' Section	France
Institut Teknologi	Malaysia
Junior College	Japan Republic of China United States
Regional (or District) College	Norway Israel
Regional Technical College	Ireland
Special Training School	Japan

Technical College (or Institute)	United States Malaysia New Zealand
Technological Education Institution	Greece
Two-Year Vocational University	People's Republic of China
University Institute of Technology (IUT)	France
Upper Secondary School	Sweden
Volkhochschul	Germany
Workers' College	People's Republic of China

TABLE 2
MAJOR EMPHASES

	General	Pre-university	Technical	Vocational	Cultural/ Social
Australia					x
Britain					x
Canada	x	x	x	x	
Denmark					x
France			x	x	
Germany					x
Greece			x		
Ireland				x	
Israel	x		x		
Japan	x	x	x	x	
Malaysia				x	
New Zealand			x	x	
Norway		x			x
People's Republic of China			x	x	
Republic of China			x	x	
Sweden	x			x	
United States	x	x	x	x	
Yugoslavia			x		

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